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NEWS	1		Web Page URLs for STN Seminar Schedule - N. America
NEWS	2		"Ask CAS" for self-help around the clock
NEWS	3	FEB 27	New STN AnaVist pricing effective March 1, 2006
NEWS	4	MAY 10	CA/CAPLUS enhanced with 1900-1906 U.S. patent records
NEWS	5	MAY 11	KOREAPAT updates resume
NEWS	6	MAY 19	Derwent World Patents Index to be reloaded and enhanced
NEWS	7	MAY 30	IPC 8 Rolled-up Core codes added to CA/CAPLUS and USPATFULL/USPAT2
NEWS	8	MAY 30	The F-Term thesaurus is now available in CA/CAPLUS
NEWS	9	JUN 02	The first reclassification of IPC codes now complete in INPADOC
NEWS	10	JUN 26	TULSA/TULSA2 reloaded and enhanced with new search and and display fields
NEWS	11	JUN 28	Price changes in full-text patent databases EPFULL and PCTFULL
NEWS	12	JUL 11	CHEMSAFE reloaded and enhanced
NEWS	13	JUL 14	FSTA enhanced with Japanese patents
NEWS	14	JUL 19	Coverage of Research Disclosure reinstated in DWPI
NEWS	15	AUG 09	INSPEC enhanced with 1898-1968 archive
NEWS	16	AUG 28	ADISCTI Reloaded and Enhanced
NEWS	17	AUG 30	CA(SM)/CAPLUS(SM) Austrian patent law changes
NEWS	18	SEP 11	CA/CAPLUS enhanced with more pre-1907 records
NEWS	19	SEP 21	CA/CAPLUS fields enhanced with simultaneous left and right truncation
NEWS	20	SEP 25	CA(SM)/CAPLUS(SM) display of CA Lexicon enhanced
NEWS	21	SEP 25	CAS REGISTRY(SM) no longer includes Concord 3D coordinates
NEWS	22	SEP 25	CAS REGISTRY(SM) updated with amino acid codes for pyrrolysine
NEWS	23	SEP 28	CEABA-VTB classification code fields reloaded with new classification scheme
NEWS EXPRESS		JUNE 30	CURRENT WINDOWS VERSION IS V8.01b, CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP), AND CURRENT DISCOVER FILE IS DATED 26 JUNE 2006.
NEWS HOURS			STN Operating Hours Plus Help Desk Availability
NEWS LOGIN			Welcome Banner and News Items
NEWS IPC8			For general information regarding STN implementation of IPC 8
NEWS X25			X.25 communication option no longer available

Enter NEWS followed by the item number or name to see news on that specific topic.

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\* \* \* \* \* STN Columbus \* \* \* \* \*

FILE 'HOME' ENTERED AT 11:27:19 ON 18 OCT 2006

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Uploading

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Do you want to switch to the Registry File?

Choice (Y/n):

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=> FILE REGISTRY

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.21	0.21

FILE 'REGISTRY' ENTERED AT 11:27:38 ON 18 OCT 2006

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STRUCTURE FILE UPDATES: 16 OCT 2006 HIGHEST RN 910535-95-4

DICTIONARY FILE UPDATES: 16 OCT 2006 HIGHEST RN 910535-95-4

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TSCA INFORMATION NOW CURRENT THROUGH June 30, 2006

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<http://www.cas.org/ONLINE/UG/regprops.html>

=>

Uploading C:\Program Files\Stnexp\Queries\10715845a.str

L1      STRUCTURE UPLOADED

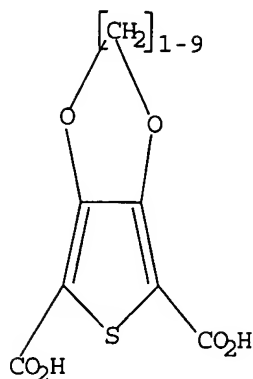
=> d l1

L1 HAS NO ANSWERS

Print selected from Online session

11:31 2

L1 STR



Structure attributes must be viewed using STN Express query preparation.

=> s l1

SAMPLE SEARCH INITIATED 11:27:52 FILE 'REGISTRY'  
SAMPLE SCREEN SEARCH COMPLETED - 1 TO ITERATE

100.0% PROCESSED 1 ITERATIONS 1 ANSWERS  
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*  
BATCH \*\*COMPLETE\*\*  
PROJECTED ITERATIONS: 1 TO 80  
PROJECTED ANSWERS: 1 TO 80

L2 1 SEA SSS SAM L1

=> s l1 sss full

FULL SEARCH INITIATED 11:28:00 FILE 'REGISTRY'  
FULL SCREEN SEARCH COMPLETED - 59 TO ITERATE

100.0% PROCESSED 59 ITERATIONS  
SEARCH TIME: 00.00.01

6 ANSWERS

L3 6 SEA SSS FUL L1

=> FIL HCAPLUS

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	166.94	167.15

FILE 'HCAPLUS' ENTERED AT 11:28:04 ON 18 OCT 2006  
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PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
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FILE COVERS 1907 - 18 Oct 2006 VOL 145 ISS 17  
FILE LAST UPDATED: 16 Oct 2006 (20061016/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s 13

L4                    19 L3

=> s 14 and copper catalyst

905704 COPPER

441 COPPERS

905768 COPPER

(COPPER OR COPPERS)

737911 CATALYST

740503 CATALYSTS

947321 CATALYST

(CATALYST OR CATALYSTS)

8885 COPPER CATALYST

(COPPER(W) CATALYST)

L5                    2 L4 AND COPPER CATALYST

=> s 14 and copper

905704 COPPER

441 COPPERS

905768 COPPER

(COPPER OR COPPERS)

L6                    6 L4 AND COPPER

=> s 14 and water-miscible

2435304 WATER

260208 WATERS

2491631 WATER

(WATER OR WATERS)

20598 MISCIBLE

7 MISCIBLES

20604 MISCIBLE

(MISCIBLE OR MISCIBLES)

3771 WATER-MISCIBLE

(WATER(W) MISCIBLE)

L7                    ~~1 L4 AND WATER-MISCIBLE~~

=> s 14 and oxygen atmosphere

739735 OXYGEN

6944 OXYGENS

744573 OXYGEN

(OXYGEN OR OXYGENS)

77762 ATMOSPHERE

29812 ATMOSPHERES

103859 ATMOSPHERE

(ATMOSPHERE OR ATMOSPHERES)

569773 ATM

20077 ATMS

580637 ATM

(ATM OR ATMS)

618185 ATMOSPHERE

(ATMOSPHERE OR ATM)

4387 OXYGEN ATMOSPHERE

(OXYGEN(W)ATMOSPHERE)

L8 1 L4 AND OXYGEN ATMOSPHERE

=> d his

(FILE 'HOME' ENTERED AT 11:27:19 ON 18 OCT 2006)

FILE 'REGISTRY' ENTERED AT 11:27:38 ON 18 OCT 2006

L1 STRUCTURE UPLOADED

L2 1 S L1

L3 6 S L1 SSS FULL

FILE 'HCAPLUS' ENTERED AT 11:28:04 ON 18 OCT 2006

L4 19 S L3

L5 2 S L4 AND COPPER CATALYST

L6 6 S L4 AND COPPER

L7 1 S L4 AND WATER-MISCIBLE

L8 1 S L4 AND OXYGEN ATMOSPHERE

=> d l5 ibib abs hitstr tot

L5 ANSWER 1 OF 2 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:609964 HCAPLUS

DOCUMENT NUMBER: 141:140454

TITLE: Catalytic decarboxylation processes for preparing 3,4-alkylenedioxythiophenes and 3,4-dialkoxythiophenes

INVENTOR(S): Baik, Woon-Phil; Kim, Young-Sam; Hong, Hee-Jung; Jung, Sang-Gook

PATENT ASSIGNEE(S): Myongji University, S. Korea

SOURCE: U.S. Pat. Appl. Publ., 5 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004147765	A1	20040729	US 2003-715845	20031119
KR 2004043622	A	20040524	KR 2002-71992	20021119
PRIORITY APPLN. INFO.:			KR 2002-71992	A 20021119

OTHER SOURCE(S): CASREACT 141:140454; MARPAT 141:140454

AB A process for preparing 3,4-dialkoxythiophenes (e.g., 3,4-dimethoxythiophene) or 3,4-alkylenedioxythiophenes (e.g., 3,4-ethylenedioxythiophene) in high yield via the rapid decarboxylation of 3,4-dialkoxythiophenedicarboxylic acid (e.g., 3,4-dimethoxy-2,5-thiophenedicarboxylic acid) or 3,4-alkylenedioxythiophenedicarboxylic acid in a water-miscible polar solvent in the presence of copper catalyst (e.g., copper powder) under an oxygen atmospheric is described.

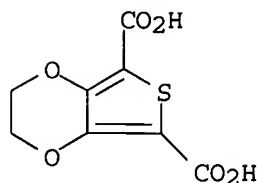
IT 18361-03-0

RL: RCT (Reactant); RACT (Reactant or reagent)

(catalytic decarboxylation processes for preparing 3,4-alkylenedioxythiophenes and 3,4-dialkoxythiophenes)

RN 18361-03-0 HCAPLUS

CN Thieno[3,4-b]-1,4-dioxin-5,7-dicarboxylic acid, 2,3-dihydro- (9CI) (CA INDEX NAME)



L5 ANSWER 2 OF 2 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2001:923215 HCAPLUS

DOCUMENT NUMBER: 136:37589

TITLE: Decarboxylation process for the production of 3,4-alkylenedioxythiophenes from 3,4-alkylenedioxythiophene-2,5-dicarboxylic acids using amine as solvents

INVENTOR(S): Jonas, Friedrich

PATENT ASSIGNEE(S): Bayer A.-G., Germany

SOURCE: Ger. Offen., 4 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 10029078	A1	2001/1220	DE 2000-10029078	20000613
PRIORITY APPLN. INFO.:			DE 2000-10029078	20000613

OTHER SOURCE(S): CASREACT 136:37589; MARPAT 136:37589

AB 3,4-Alkylenedioxythiophenes (e.g., 3,4-ethylenedioxythiophene) are prepared in high yield and selectivity, without the need to use copper catalysts, by the decarboxylation of 3,4-alkylenedioxythiophene-2,5-dicarboxylic acids (e.g., 3,4-ethylenedioxythiophene-2,5-dicarboxylic acid) in the presence of amines R<sub>2</sub>N(R<sub>1</sub>)R<sub>3</sub> [R<sub>1</sub>-R<sub>3</sub> = H, (un)substituted (un)branched C<sub>1</sub>-30 alkyl, (un)substituted aryl; R<sub>1</sub>R<sub>2</sub> = C<sub>3</sub>-10 alkylene group] (e.g., triethanolamine) as solvents.

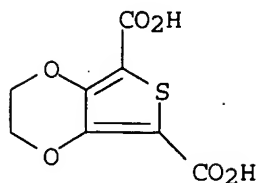
IT 18361-03-0

RL: RCT (Reactant); RACT (Reactant or reagent)

(decarboxylation process for the production of 3,4-alkylenedioxythiophenes from 3,4-alkylenedioxythiophene-2,5-dicarboxylic acids using amine as solvents)

RN 18361-03-0 HCAPLUS

CN Thieno[3,4-b]-1,4-dioxin-5,7-dicarboxylic acid, 2,3-dihydro- (9CI) (CA INDEX NAME)



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L6 ANSWER 1 OF 6 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:1281732 HCAPLUS

DOCUMENT NUMBER: 144:70210

TITLE: Preparation of thiophene and polythiophene

INVENTOR(S): Xu, Liangheng; Li, Xiang; Wang, Qunying; Gao, Yun

PATENT ASSIGNEE(S): Peop. Rep. China

SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 13 pp.

CODEN: CNXXEV

DOCUMENT TYPE: Patent

LANGUAGE: Chinese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 1616454	A	20050518	CN 2004-10066866	20040929
PRIORITY APPLN. INFO.:			CN 2004-10066866	20040929
OTHER SOURCE(S):	MARPAT 144:70210			

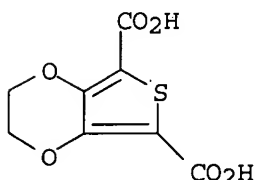
AB A process for preparing high-purity thiophene at high yield is by catalytic or thermal decarboxylation, with copper and/or chromium salt or oxide as the catalyst, in polar solvent such as sulfolane and PEG. Polythiophene is prepared by polymerizing thiophene in the presence of oxidant and anionic polyelectrolyte at 0-50° for 5-30 h at a pH of 1.0-3.0. Polythiophene are useful as transparent conductive film for through-hole circuit board and electroluminescent display device.

IT 18361-03-0

RL: RCT (Reactant); RACT (Reactant or reagent)  
(preparation of thiophene and polythiophene)

RN 18361-03-0 HCAPLUS

CN Thieno[3,4-b]-1,4-dioxin-5,7-dicarboxylic acid, 2,3-dihydro- (9CI) (CA INDEX NAME)



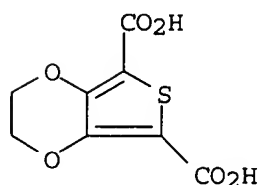
L6 ANSWER 2 OF 6 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:609964 HCAPLUS

DOCUMENT NUMBER: 141:140454  
 TITLE: Catalytic decarboxylation processes for preparing  
 3,4-alkylenedioxythiophenes and 3,4-dialkoxythiophenes  
 INVENTOR(S): Baik, Woon-Phil; Kim, Young-Sam; Hong, Hee-Jung; Jung,  
 Sang-Geok  
 PATENT ASSIGNEE(S): Myongji University, S. Korea  
 SOURCE: U.S. Pat. Appl. Publ., 5 pp.  
 CODEN: USXXCO  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004147765	A1	20040729	US 2003-715845	20031119
KR 2004043622	A	20040524	KR 2002-71992	20021119
PRIORITY APPLN. INFO.:			KR 2002-71992	A 20021119

OTHER SOURCE(S): CASREACT 141:140454; MARPAT 141:140454  
 AB A process for preparing 3,4-dialkoxythiophenes (e.g., 3,4-dimethoxythiophene) or 3,4-alkylenedioxythiophenes (e.g., 3,4-ethylenedioxythiophene) in high yield via the rapid decarboxylation of 3,4-dialkoxythiophenedicarboxylic acid (e.g., 3,4-dimethoxy-2,5-thiophenedicarboxylic acid) or 3,4-alkylenedioxythiophenedicarboxylic acid in a water-miscible polar solvent in the presence of copper catalyst (e.g., copper powder) under an oxygen atmospheric is described.  
 IT 18361-03-0  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (catalytic decarboxylation processes for preparing 3,4-alkylenedioxythiophenes and 3,4-dialkoxythiophenes)  
 RN 18361-03-0 HCAPLUS  
 CN Thieno[3,4-b]-1,4-dioxin-5,7-dicarboxylic acid, 2,3-dihydro- (9CI) (CA INDEX NAME)



L6 ANSWER 3 OF 6 HCAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 2004:510005 HCAPLUS  
 DOCUMENT NUMBER: 141:38520  
 TITLE: Procedure for thermal decarboxylation of  
 3,4-ethylenedioxythiophene-2,5-dicarboxylic acid in  
 copper carbonate fluidized bed  
 INVENTOR(S): Buchholz, Sigurd; Klausener, Alexander; Langer,  
 Reinhard; Mleczko, Leslaw; Rauchschalbe, Guenter  
 PATENT ASSIGNEE(S): Bayer AG, Germany  
 SOURCE: Ger. Offen., 5 pp.  
 CODEN: GWXXBX  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1



## PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 10258588	A1	20040624	DE 2002-10258588	20021216
WO 2004055023	A1	20040701	WO 2003-EP13679	20031204
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2003288225	A1	20040709	AU 2003-288225	20031204
EP 1575961	A1	20050921	EP 2003-780117	20031204
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
CN 1759119	A	20060412	CN 2003-80106245	20031204
JP 2006515842	T2	20060608	JP 2004-559751	20031204
US 2006149083	A1	20060706	US 2005-538995	20051220
PRIORITY APPLN. INFO.:			DE 2002-10258588	A 20021216
			WO 2003-EP13679	W 20031204

OTHER SOURCE(S): CASREACT 141:38520

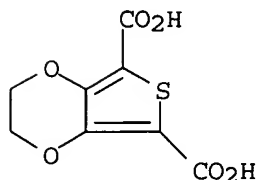
AB The invention relates to the thermal decarboxylation of dicarboxylic acids especially 3,4-ethylenedioxythiophene-2,5-dicarboxylic acid. The thermal decarboxylation of the solid educt is carried out in a fluidized bed in the absence of solvents and in the presence of an inert gas at 100°-600°. The fluidizing agent consists of preheated, catalytically active material such as CuCO<sub>3</sub>. The resulting product especially gaseous 3,4-ethylenedioxythiophene is discharged from the reaction zone. Thus, 3,4-ethylenedioxythiophene-2,5-dicarboxylic acid and CuCO<sub>3</sub> was fluidized with N<sub>2</sub> in a quartz fluidized bed at 280° for 58 min to give >94% 3,4-ethylenedioxythiophene.

IT 18361-03-0, Thieno[3,4-b]-1,4-dioxin, 5,7-dicarboxylic acid, 2,3-dihydro-

RL: RCT (Reactant); RACT (Reactant or reagent)  
(thermal decarboxylation of, in copper carbonate fluidized bed)

RN 18361-03-0 HCAPLUS

CN Thieno[3,4-b]-1,4-dioxin-5,7-dicarboxylic acid, 2,3-dihydro- (9CI) (CA INDEX NAME)



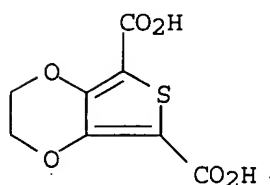
L6 ANSWER 4 OF 6 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2001:923215 HCAPLUS

DOCUMENT NUMBER: 136:37589

TITLE: Decarboxylation process for the production of  
3,4-alkylenedioxythiophenes from 3,4-  
alkylenedioxythiophene-2,5-dicarboxylic acids using  
amine as solvents  
INVENTOR(S): Jonas, Friedrich  
PATENT ASSIGNEE(S): Bayer A.-G., Germany  
SOURCE: Ger. Offen., 4 pp.  
CODEN: GWXXBX  
DOCUMENT TYPE: Patent  
LANGUAGE: German  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

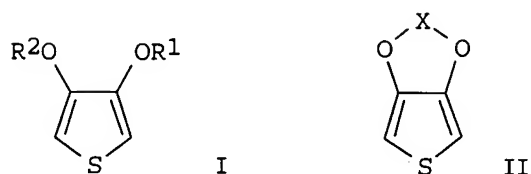
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 10029078	A1	20011220	DE 2000-10029078	20000613
PRIORITY APPLN. INFO.:			DE 2000-10029078	20000613
OTHER SOURCE(S):	CASREACT 136:37589; MARPAT 136:37589			
AB	3,4-Alkylenedioxythiophenes (e.g., 3,4-ethylenedioxythiophene) are prepared in high yield and selectivity, without the need to use copper catalysts, by the decarboxylation of 3,4-alkylenedioxythiophene-2,5-dicarboxylic acids (e.g., 3,4-ethylenedioxythiophene-2,5-dicarboxylic acid) in the presence of amines R <sub>2</sub> N(R <sub>1</sub> )R <sub>3</sub> [R <sub>1</sub> -R <sub>3</sub> = H, (un)substituted (un)branched C <sub>1</sub> -30 alkyl, (un)substituted aryl; R <sub>1</sub> R <sub>2</sub> = C <sub>3</sub> -10 alkylene group] (e.g., triethanolamine) as solvents.			
IT	18361-03-0 RL: RCT (Reactant); RACT (Reactant or reagent) (decarboxylation process for the production of 3,4-alkylenedioxythiophenes from 3,4-alkylenedioxythiophene-2,5-dicarboxylic acids using amine as solvents)			
RN	18361-03-0 HCAPLUS			
CN	Thieno[3,4-b]-1,4-dioxin-5,7-dicarboxylic acid, 2,3-dihydro- (9CI) (CA INDEX NAME)			



L6 ANSWER 5 OF 6 HCAPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 2001:747165 HCAPLUS  
DOCUMENT NUMBER: 135:289187  
TITLE: Preparation of dialkoxythiophenes and  
alkylenedioxythiophenes  
INVENTOR(S): Rauchschalbe, Guenter; Jonas, Friedrich  
PATENT ASSIGNEE(S): Bayer A.-G., Germany  
SOURCE: Eur. Pat. Appl., 10 pp.  
CODEN: EPXXDW  
DOCUMENT TYPE: Patent  
LANGUAGE: German  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1142888	A1	20011010	EP 2001-106444	20010323
EP 1142888	B1	20040908		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
DE 10016723	A1	20011011	DE 2000-10016723	20000404
US 2001034453	A1	20011025	US 2001-813875	20010321
<u>US 6369239</u>	B2	20020409		
AT 275555	E	20040915	AT 2001-106444	20010323
ES 2228680	T3	20050416	ES 2001-1106444	20010323
JP 2001288182	A2	20011016	JP 2001-92829	20010328
PRIORITY APPLN. INFO.:			DE 2000-10016723	A 20000404
OTHER SOURCE(S):	MARPAT 135:289187			

GI

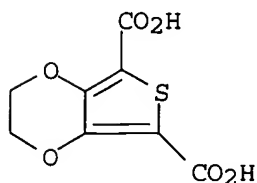


AB Dialkoxythiophenes (I; R1, R2 = C1-15 alkyl) and alkylenedioxythiophenes (II; X = (un)substituted (CH2)n; n = 1-12], useful as monomers for elec. conductive polymers, are manufactured by decarboxylation of 3,4-dialkoxy- resp. 3,4-dialkylenedioxy-2,5-thiophenedicarboxylic acids in the presence of solvents or diluents which have b.ps. higher than decarboxylated products and are not aromatic amines, and optionally, heavy metal salt catalysts. The products are separated by distillation For example, heating a mixture of 450 g di-Bu phthalate and 240 g 3,4-ethylenedioxythiophene-2,5-dicarboxylic acid to 150° in vacuo (.apprx.30 mbar) and removing H2O by distillation, heating the residue for 24 h at 240° under N until CO2 evolution ceased and distilling the product at 0.1 mbar gave 118 g 3,4-ethylenedioxythiophene.

IT 18361-03-0  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(preparation of dialkoxythiophenes and alkylenedioxythiophenes by decarboxylation of thiophenedicarboxylic acid precursors)

RN 18361-03-0 HCAPLUS

CN Thieno[3,4-b]-1,4-dioxin-5,7-dicarboxylic acid, 2,3-dihydro- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 6 OF 6 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1997:251082 HCAPLUS  
DOCUMENT NUMBER: 126:278009  
TITLE: High-Contrast Electrochromic Polymers from  
Alkyl-Derivatized Poly(3,4-ethylenedioxythiophenes)  
AUTHOR(S): Sankaran, Balasubramanian; Reynolds, John R.  
CORPORATE SOURCE: Department of Chemistry Center for Macromolecular  
Science and Engineering, University of Florida,  
Gainesville, FL, 32611-7200, USA  
SOURCE: Macromolecules (1997), 30(9), 2582-2588  
CODEN: MAMOBX; ISSN: 0024-9297  
PUBLISHER: American Chemical Society  
DOCUMENT TYPE: Journal  
LANGUAGE: English

AB Derivs. of 3,4-ethylenedioxythiophene (EDOT), specifically  
5-octyldioxeno[2,3-c]thiophene (EDOT-C8) and 5-tetradecyldioxeno[2,3-  
c]thiophene (EDOT-C14), and their polymers were prepared. Cyclic voltammetry  
of PEDOT-C8 and EDOT-C14 in 0.1 M TBAP/CH<sub>3</sub>CN show irreversible monomer  
oxidation peaks (E<sub>p,m</sub>) at 0.89 and 0.93 V, resp. Multiple scans yield  
electroactive and conducting polymer films on electrode surfaces. The  
polymers, PEDOT-C8 and PEDOT-C14 oxidize with relatively low peak  
potentials at -0.22 and -0.19 V, resp., indicating that the doped form of  
the polymer is quite stable. Both PEDOT-C8 and PEDOT-C14 show two reduction  
processes with peaks at -0.18 and -0.16 V (E<sub>c1,p</sub>) and -0.55 and -0.36 V  
(E<sub>c2,p</sub>) resp. Optoelectrochem. studies reveal an E<sub>g</sub> of 1.75 eV for both  
polymers. The polymers are electrochromic, relatively transmissive and  
light gray in the oxidized form, while being opaque and deep purple in the  
reduced form, thus exhibiting high electrochromic contrasts. Long term  
switching studies carried out in 0.1 M LiClO<sub>4</sub>/PC with Li/Li<sup>+</sup> as a  
reversible counter electrode process show that PEDOT, PEDOT-C8, and  
PEDOT-C14 retained 65%, 50%, and 62% of their electroactivity after 6000,  
9000, and 16 000 double switches, resp.

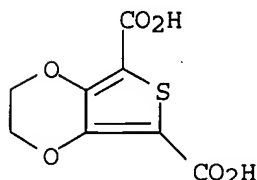
IT 18361-03-0P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
(Reactant or reagent)

(preparation and electrochem. polymerization of octyl- and  
tetradecyl-dioxeno  
ethylenedioxythiophenes to obtain electrochromic polymers)

RN 18361-03-0 HCAPLUS

CN Thieno[3,4-b]-1,4-dioxin-5,7-dicarboxylic acid, 2,3-dihydro- (9CI) (CA  
INDEX NAME)



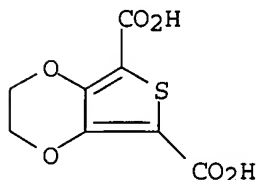
REFERENCE COUNT: 51 THERE ARE 51 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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L7 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:609964 HCAPLUS  
 DOCUMENT NUMBER: 141:140454  
 TITLE: Catalytic decarboxylation processes for preparing  
 3,4-alkylenedioxythiophenes and 3,4-dialkoxythiophenes  
 INVENTOR(S): Baik, Woon-Phil; Kim, Young-Sam; Hong, Hee-Jung; Jung,  
 Sang-Gook  
 PATENT ASSIGNEE(S): Myongji University, S. Korea  
 SOURCE: U.S. Pat. Appl. Publ., 5 pp.  
 CODEN: USXXCO  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004147765	A1	20040729	US 2003-715845	20031119
KR 2004043622	A	20040524	KR 2002-71992	20021119
PRIORITY APPLN. INFO.:			KR 2002-71992	A 20021119
OTHER SOURCE(S): CASREACT 141:140454; MARPAT 141:140454				
AB A process for preparing 3,4-dialkoxythiophenes (e.g., 3,4-dimethoxythiophene) or 3,4-alkylenedioxythiophenes (e.g., 3,4-ethylenedioxythiophene) in high yield via the rapid decarboxylation of 3,4-dialkoxythiophenedicarboxylic acid (e.g., 3,4-dimethoxy-2,5-thiophenedicarboxylic acid) or 3,4-alkylenedioxythiophenedicarboxylic acid in a water- miscible polar solvent in the presence of copper catalyst (e.g., copper powder) under an oxygen atmospheric is described.				
IT 18361-03-0 RL: RCT (Reactant); RACT (Reactant or reagent) (catalytic decarboxylation processes for preparing 3,4- alkylenedioxythiophenes and 3,4-dialkoxythiophenes)				
RN 18361-03-0 HCAPLUS				
CN Thieno[3,4-b]-1,4-dioxin-5,7-dicarboxylic acid, 2,3-dihydro- (9CI) (CA INDEX NAME)				



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L8 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 2004:609964 HCAPLUS  
 DOCUMENT NUMBER: 141:140454  
 TITLE: Catalytic decarboxylation processes for preparing  
 3,4-alkylenedioxythiophenes and 3,4-dialkoxythiophenes  
 INVENTOR(S): Baik, Woon-Phil; Kim, Young-Sam; Hong, Hee-Jung; Jung,  
 Sang-Gook  
 PATENT ASSIGNEE(S): Myongji University, S. Korea  
 SOURCE: U.S. Pat. Appl. Publ., 5 pp.  
 CODEN: USXXCO

DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004147765	A1	20040729	US 2003-715845	20031119
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PRIORITY APPLN. INFO.:			KR 2002-71992	A 20021119

OTHER SOURCE(S): CASREACT 141:140454; MARPAT 141:140454

AB A process for preparing 3,4-dialkoxythiophenes (e.g., 3,4-dimethoxythiophene) or 3,4-alkylenedioxythiophenes (e.g., 3,4-ethylenedioxythiophene) in high yield via the rapid decarboxylation of 3,4-dialkoxythiophenedicarboxylic acid (e.g., 3,4-dimethoxy-2,5-thiophenedicarboxylic acid) or 3,4-alkylenedioxythiophenedicarboxylic acid in a water-miscible polar solvent in the presence of copper catalyst (e.g., copper powder) under an oxygen atm. is described.

IT 18361-03-0

RL: RCT (Reactant); RACT (Reactant or reagent)  
(catalytic decarboxylation processes for preparing 3,4-alkylenedioxythiophenes and 3,4-dialkoxythiophenes)

RN 18361-03-0 HCAPLUS

CN Thieno[3,4-b]-1,4-dioxin-5,7-dicarboxylic acid, 2,3-dihydro- (9CI) (CA INDEX NAME)

